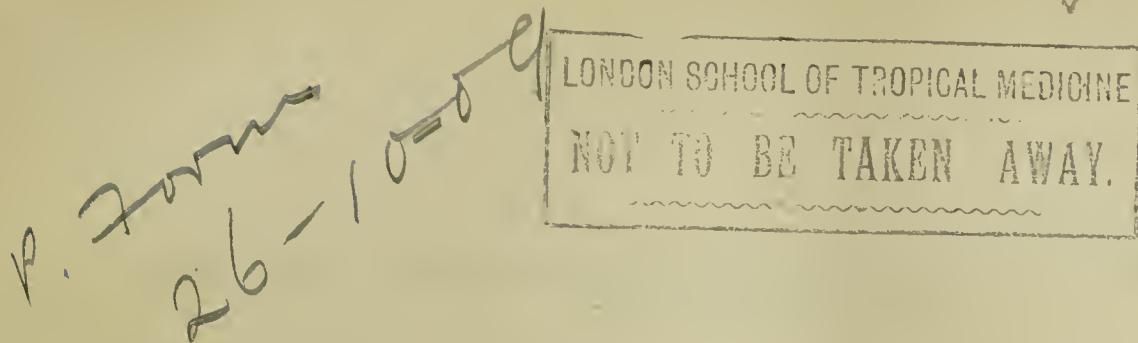


Federated Malay States.



C.O.
3120.
20 SEP 00

THE MEDICAL REPORT
FOR THE
STATE OF PAHANG,
1908.

RETURN OF THE STATISTICS OF POPULATION OF PAHANG
FOR THE YEAR 1908.

| | | Europeans. | Eurasians. | Chinese. | Malays. | Indians. | Others. | Total. |
|--------------------------------|-----|------------|------------|----------|---------|----------|---------|--------|
| Number of Inhabitants in 1901* | 134 | 46 | 8,695 | 73,462 | 1,227 | 549 | | 84,113 |
| „ Births during the year 1908 | ... | 2 | 109 | 2,303 | 33 | 2 | | 2,448 |
| „ Deaths „ „ | 1 | 1 | 858 | 1,800 | 150 | ... | | 2,810 |
| „ Immigrants „ „† | | | | | | | | |
| „ Emigrants „ „† | | | | | | | | |
| „ Inhabitants in 1908 † „ | | | | | | | | |
| Increase | | | | | | | | |
| Decrease | | | | | | | | |

* Last Census returns.

† No return available.

METEOROLOGICAL RETURN OF KUALA LIPIS FOR THE YEAR 1908.

| | | Temperature. | | | | | Rainfall. | | Winds. | | |
|-------------------|-----|----------------|-------------------|----------------|----------------|--------|-----------|-------------------|---------------------|--------------------|----------------|
| | | Solar Maximum. | Minimum on Grass. | Shade Maximum. | Shade Minimum. | Range. | Mean. | Amount in Inches. | Degree of Humidity. | General Direction. | Average Force. |
| January | ... | ... | ... | 93 | 68 | 17.4 | 79.6 | 12.99 | | | |
| February | ... | ... | ... | 93 | 67 | 17.2 | 78.4 | 4.43 | | | |
| March | ... | ... | ... | 94 | 69 | 19.1 | 80.4 | 2.71 | | | |
| April | ... | ... | ... | 93 | 69 | 19.8 | 80.4 | 5.45 | | | |
| May | ... | ... | ... | 93 | 69 | 20.6 | 80.4 | 12.21 | | | |
| June | ... | ... | ... | 92 | 68 | 19.1 | 79.9 | 17.16 | | | |
| July | ... | ... | ... | 91 | 67 | 20.2 | 78.5 | 17.09 | | | |
| August | ... | ... | ... | 92 | 67 | 19.5 | 79.0 | 5.72 | | | |
| September | ... | ... | ... | 91 | 68 | 18.9 | 79.2 | 10.44 | | | |
| October | ... | ... | ... | 92 | 68 | 19.9 | 79.9 | 5.98 | | | |
| November | ... | ... | 90 | 68 | 17.4 | 78.2 | 12.56 | | | | |
| December | ... | ... | 91 | 68 | 17.6 | 78.0 | 8.81 | | | | |
| Average | ... | ... | 92 | 68 | 18.8 | 75.9 | 9.62 | | | | |

RETURN OF DISEASES AND DEATHS IN 1908 AT THE FOLLOWING
INSTITUTIONS:—

KUALA LIPIS GENERAL HOSPITAL; DISTRICT HOSPITALS AT RAUB, BENTONG, PEKAN AND KUANTAN; AND GAOL HOSPITALS AT KUALA LIPIS AND PEKAN.

| Diseases. | *Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|------------------------|---|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| GENERAL DISEASES. | | | | | |
| Small-pox | ... | 2 | ... | 2 | |
| Chicken-pox | ... | | | | |
| Measles | ... | | | | |
| Typhus | ... | | | | |
| Dengue | ... | 1 | ... | 1 | |
| Influenza | ... | 1 | ... | 1 | |
| Plague | ... | | | | |
| Mumps | ... | 16 | ... | 16 | 1 |
| Diphtheria | ... | 2 | ... | 2 | |
| Febricula | ... | | | | |
| Enteric Fever | ... | 1 | 8 | 1 | 9 |
| Cholera | ... | | | | |
| Dysentery | ... | 8 | 290 | 74 | 298 |
| Yellow Fever | ... | | | | 11 |
| Beri-beri | ... | 56 | 523 | 53 | 579 |
| Malarial Fever— | | 52 | 1,550 | 76 | 1,602 |
| (a) Intermittent— | | | | | |
| Quotidian | ... | | | | |
| Tertian | ... | | | | |
| Quartan | ... | | | | |
| Irregular | ... | | | | |
| Type undiagnosed | ... | | | | |
| (b) Remittent | ... | | | | |
| (c) Pernicious R. | ... | | | | |
| Phagedæna— | | | | | |
| (a) Sloughing | ... | 7 | ... | 7 | 1 |
| (b) Hospital gangrene | ... | | | | |
| Erysipelas | ... | 6 | 2 | 6 | |
| <i>Carried forward</i> | 117 | 2,406 | 206 | 2,523 | 114 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|---------------------------------|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| GENERAL DISEASES—(cont.) | | | | | |
| | <i>Brought forward</i> | 117 | 2,406 | 206 | 2,523 |
| Pyæmia | ... | ... | 2 | 1 | 2 |
| Septicæmia | ... | ... | 1 | 1 | 1 |
| Tetanus | ... | ... | | | |
| Tubercle | ... | ... | 18 | 9 | 19 |
| Leprosy— | | | | | |
| (a) Tubercular | ... | 3 | 3 | 1 | 6 |
| (b) Anæsthetic | ... | ... | 2 | ... | 2 |
| Yaws | ... | ... | 4 | ... | 4 |
| Syphilis— | | | | | |
| (a) Primary | ... | ... | 16 | 1 | 16 |
| (b) Secondary | ... | 1 | 35 | 4 | 36 |
| (c) Inherited | ... | 4 | 33 | 1 | 37 |
| Gonorrhœa | ... | 3 | 51 | ... | 54 |
| Hydrophobia | ... | | | | |
| Scurvy | ... | | | | |
| Alcoholism | ... | ... | 1 | ... | 1 |
| Delirium Tremens | ... | | | | |
| Rheumatic Fever | ... | | | | |
| Rheumatism | ... | 7 | 107 | ... | 114 |
| Gout | ... | | | | |
| New Growths, non-malignant | ... | 1 | 2 | 2 | 3 |
| Do. malignant | ... | ... | 1 | ... | 1 |
| Rickets | ... | 12 | 111 | 13 | 123 |
| Anæmia | ... | | | | |
| Myxœdema | ... | | | | |
| Diabetes mellitus | ... | | | | |
| Do. insipidus | ... | | | | |
| Debility | ... | 8 | 173 | 27 | 181 |
| Other Diseases | ... | ... | 1 | ... | 1 |
| | <i>Carried forward</i> | 157 | 2,967 | 266 | 3,124 |
| | | | | | 138 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|------------------------------|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| <i>Brought forward</i> ... | 157 | 2,967 | 266 | 3,124 | 138 |
| LOCAL DISEASES. | | | | | |
| NERVOUS SYSTEM. | | | | | |
| Sub-Section 1— | | | | | |
| Neuritis | ... | 1 | 3 | ... | 4 |
| Meningitis | ... | ... | 2 | 2 | 2 |
| Myelitis | ... | ... | ... | | |
| Hydrocephalus | ... | ... | ... | | |
| Encephalitis | ... | ... | ... | | |
| Abscess of brain | ... | ... | ... | | |
| Congestion of brain | ... | ... | ... | | |
| Sub-Section 2— | | | | | |
| Apoplexy | ... | 1 | 3 | 1 | 4 |
| Paralysis | ... | 1 | 2 | ... | 3 |
| Bed-sore | ... | ... | ... | | |
| Chorea | ... | ... | ... | | |
| Epilepsy | ... | ... | 3 | ... | 3 |
| Neuralgia | ... | ... | 3 | ... | 3 |
| Hysteria | ... | ... | ... | | |
| Sub-Section 3— | | | | | |
| Idiocy | ... | ... | ... | | |
| Mania | ... | ... | 3 | ... | 3 |
| Melancholia | ... | ... | 4 | ... | 4 |
| Dementia | ... | ... | ... | | |
| Delusional Insanity | ... | ... | ... | | |
| Other Diseases of the System | ... | ... | 1 | ... | 1 |
| EYE. | | | | | |
| Conjunctiva— | | | | | |
| Conjunctivitis | ... | ... | 11 | ... | 11 |
| Cornea— | | | | | |
| Keratitis | ... | ... | 1 | ... | 1 |
| Ulceration | ... | ... | 5 | ... | 5 |
| Opacity | ... | ... | ... | | |
| <i>Carried forward</i> ... | 160 | 3,008 | 269 | 3,168 | 142 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|--|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| Brought forward ... | 160 | 3,008 | 269 | 3,168 | 142 |
| LOCAL DISEASES—(cont.) | | | | | |
| EYE—(cont.) | | | | | |
| Schlerotic— | | | | | |
| Staphyloma... | | | | | |
| Iris— | | | | | |
| Iritis | ... | 2 | ... | 2 | |
| Glaucoma | ... | | | | |
| Hypopyon | ... | | | | |
| Lens— | | | | | |
| Cataract | ... | | | | |
| Eyelids— | | | | | |
| Entropion | ... | 1 | ... | 1 | |
| Other Eye Diseases | 1 | 12 | ... | 13 | |
| EAR. | | | | | |
| Inflammation | ... | 1 | ... | 1 | |
| Other Ear Diseases | ... | 3 | ... | 3 | |
| NOSE. | | | | | |
| Inflammation | ... | | | | |
| Other Nose Diseases | ... | 2 | ... | 2 | |
| CIRCULATORY SYSTEM. | | | | | |
| Membranes— | | | | | |
| Pericarditis... | ... | | | | |
| Endocarditis | ... | | | | |
| Valvular Diseases | ... | 18 | 10 | 18 | 1 |
| Muscular Substance— | | | | | |
| Hypertrophy | ... | | | | |
| Dilatation | ... | | | | |
| Other Diseases of the System | ... | 1 | ... | 1 | |
| RESPIRATORY SYSTEM. | | | | | |
| Larynx— | | | | | |
| Laryngitis | ... | | | | |
| Carried forward ... | 161 | 3,048 | 279 | 3,209 | 143 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|-----------------------------------|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| <i>Brought forward</i> ... | 161 | 3,048 | 279 | 3,209 | 143 |
| LOCAL DISEASES—(cont.) | | | | | |
| RESPIRATORY SYSTEM—(cont.) | | | | | |
| Bronchi— | | | | | |
| Bronchitis ... | 3 | 124 | 2 | 127 | 4 |
| Asthma ... | 2 | 15 | ... | 17 | 1 |
| Lung— | | | | | |
| Congestion ... | ... | ... | ... | | |
| Hæmoptysis ... | ... | 1 | ... | 1 | |
| Pneumonia ... | 2 | 33 | 23 | 35 | 1 |
| Gangrene ... | ... | ... | ... | | |
| Phthisis ... | 3 | 97 | 48 | 100 | 9 |
| Emphysema ... | ... | ... | ... | | |
| Pleura— | | | | | |
| Pleurisy ... | ... | 9 | 4 | 9 | |
| Empyema ... | ... | 1 | ... | 1 | |
| Other Diseases of the System ... | ... | 5 | ... | 5 | |
| DIGESTIVE SYSTEM. | | | | | |
| Mouth— | | | | | |
| Stomatitis ... | ... | ... | ... | | |
| Dental Periostium— | | | | | |
| Gum-boil ... | ... | 1 | ... | 1 | |
| Fauces— | | | | | |
| Tonsillitis ... | ... | ... | ... | | |
| Stomach— | | | | | |
| Gastritis ... | ... | 6 | ... | 6 | |
| Dyspepsia ... | 2 | 51 | ... | 53 | |
| Intestines— | | | | | |
| Enteritis ... | ... | 5 | 3 | 5 | 1 |
| Sprue ... | ... | ... | ... | | |
| Hernia ... | 1 | 1 | ... | 2 | |
| Constipation ... | ... | 36 | ... | 36 | |
| Diarrhoea ... | 7 | 198 | 47 | 205 | 6 |
| <i>Carried forward</i> ... | 181 | 3,631 | 406 | 3,812 | 165 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|---------------------------------|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| <i>Brought forward</i> ... | 181 | 3,631 | 406 | 3,812 | 165 |
| LOCAL DISEASES—(cont.) | | | | | |
| DIGESTIVE SYSTEM—(cont.) | | | | | |
| Rectum and Anus— | | | | | |
| Hemorrhoids | ... | 2 | 11 | ... | 13 |
| Liver— | | | | | |
| Hepatitis | ... | 1 | 1 | ... | 2 |
| Abscess Liver | ... | ... | ... | ... | ... |
| Cirrhosis | ... | ... | ... | 1 | ... |
| Congestion Liver | ... | ... | ... | ... | 1 |
| Jaundice | ... | ... | 5 | ... | 5 |
| Peritoneum— | | | | | |
| Peritonitis | ... | ... | 5 | 2 | 5 |
| Ascites | ... | ... | 3 | 1 | 3 |
| Other Diseases of the System | ... | ... | 16 | 1 | 16 |
| LYMPHATIC SYSTEM. | | | | | |
| Spleen— | | | | | |
| Splenitis | ... | 3 | 106 | 1 | 109 |
| Bubo | ... | ... | 12 | ... | 12 |
| Lymphangitis | ... | ... | 10 | ... | 10 |
| Elephantiasis | ... | ... | ... | ... | ... |
| Other Diseases of the System | ... | ... | 3 | 1 | 3 |
| URINARY SYSTEM. | | | | | |
| Kidney— | | | | | |
| Acute Nephritis | ... | ... | ... | ... | ... |
| Bright's Disease | ... | 3 | 47 | 15 | 50 |
| Hæniaturia | ... | ... | ... | ... | ... |
| Chyluria | ... | ... | ... | ... | ... |
| Bladder— | | | | | |
| Cystitis | ... | ... | 3 | ... | 3 |
| Calculus | ... | ... | ... | ... | ... |
| Other Diseases of the System | ... | ... | ... | ... | ... |
| <i>Carried forward</i> ... | 190 | 3,854 | 427 | 4,044 | 184 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|---|--|------------------|---------|------------------------------|--|
| | | Admis- sions. | Deaths. | | |
| <i>Brought forward</i> ... | 190 | 3,854 | 427 | 4,044 | 184 |
| LOCAL DISEASES—(cont.) | | | | | |
| GENERATIVE SYSTEM. | | | | | |
| Urethra— | | | | | |
| Stricture | ... | 3 | ... | 3 | |
| Prepuce— | | | | | |
| Phimosis | ... | 2 | ... | 2 | 1 |
| Paraphimosis | 1 | 4 | ... | 5 | |
| Penis— | | | | | |
| Soft Chancere | 1 | 20 | ... | 21 | |
| Scrotum— | | | | | |
| Sloughing Scrotum | ... | 4 | ... | 4 | 1 |
| Tunica Vaginalis— | | | | | |
| Hydrocele | ... | 3 | ... | 3 | |
| Testicle— | | | | | |
| Orchitis | ... | 5 | ... | 5 | |
| Epididymitis | ... | | | | |
| Other Diseases (male) | ... | 2 | ... | 2 | |
| Uterus— | | | | | |
| Metritis | ... | 1 | ... | 1 | 1 |
| Uterine Displacements | ... | | | | |
| Amenorrhœa | ... | 1 | ... | 1 | |
| Dysmenorrhœa | ... | | | | |
| Menorrhagia | ... | | | | |
| Leucorrhœa | ... | | | | |
| Other Diseases (female) | ... | 5 | 1 | 5 | |
| ORGANS OF LOCOMOTION. | | | | | |
| Bones— | | | | | |
| Ostitis | ... | | | | |
| Periostitis | ... | 2 | ... | 2 | |
| Caries | 2 | 5 | ... | 7 | 1 |
| Necrosis | 1 | 4 | ... | 5 | 2 |
| <i>Carried forward</i> ... | 195 | 3,915 | 428 | 4,110 | 190 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | * Remaining in Hospital at end of 1907. | Yearly Total. | | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|-------------------------------------|--|------------------|---------|-------|------------------------------|--|
| | | Admis- sions. | Deaths. | | | |
| Brought forward ... | 195 | 3,915 | 428 | 4,110 | 190 | |
| LOCAL DISEASES—(cont.) | | | | | | |
| ORGANS OF LOCOMOTION—(cont.) | | | | | | |
| Joints— | | | | | | |
| Synovitis ... | ... | 13 | 2 | 13 | 3 | |
| Ankylosis ... | ... | | | | | |
| Spine— | | | | | | |
| Caries Spine ... | ... | | | | | |
| Curvature Spine ... | ... | | | | | |
| Muscles— | | | | | | |
| Myalgia ... | ... | 2 | ... | 2 | | |
| Other Diseases ... | ... | 1 | ... | 1 | | |
| CONNECTIVE TISSUE. | | | | | | |
| Cellulitis ... | ... | 9 | ... | 9 | 1 | |
| Abscess ... | 3 | 75 | ... | 78 | 8 | |
| Gangrene ... | ... | 2 | 1 | 2 | | |
| SKIN. | | | | | | |
| Eczema ... | 1 | 29 | ... | 30 | 2 | |
| Psoriasis ... | ... | 2 | ... | 2 | | |
| Herpes... ... | ... | 6 | ... | 6 | | |
| Do. Zoster... ... | ... | | | | | |
| Ulcer ... | 37 | 620 | 3 | 657 | 42 | |
| Boil ... | ... | 8 | ... | 8 | | |
| Carbuncle ... | ... | 7 | 1 | 7 | | |
| Onychia ... | ... | 1 | ... | 1 | | |
| Whitlow ... | ... | 1 | ... | 1 | | |
| Other Diseases ... | ... | 19 | ... | 19 | 1 | |
| GENERAL INJURIES. | | | | | | |
| Burns and Scalds ... | ... | 2 | ... | 2 | | |
| Sunstroke ... | ... | | | | | |
| Multiple Injury ... | ... | 8 | ... | 8 | | |
| Starvation ... | ... | 2 | 2 | 2 | | |
| Shock ... | ... | | | | | |
| Carried forward ... | 236 | 4,722 | 437 | 4,958 | 248 | |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

| Diseases. | Brought forward | ... 236 | * Remaining in Hospital at end of 1907. | Yearly Total. | | † Total Cases Treated. | ‡ Remaining in Hospital at end of 1908. |
|-------------------------|-----------------|---------|--|------------------|---------|------------------------------|--|
| | | | | Admis- sions. | Deaths. | | |
| | | | | 4,722 | 437 | 4,958 | 248 |
| LOCAL INJURIES. | | | | | | | |
| Burns and Scalds | ... | ... | ... | ... | 7 | ... | 7 |
| Wounds | ... | ... | ... | 9 | 157 | ... | 166 |
| Sprains | ... | ... | ... | ... | 22 | ... | 22 |
| Dislocations | ... | ... | ... | | | | |
| Fractures, simple | ... | ... | ... | 2 | 13 | 1 | 15 |
| Do. compound | ... | ... | ... | 2 | 5 | 1 | 7 |
| Other Injuries | ... | ... | ... | ... | 30 | ... | 30 |
| Surgical Operations | ... | ... | ... | 1 | 5 | ... | 6 |
| POISONS. | | | | | | | |
| Malformations | ... | ... | ... | | | | |
| Mercury | ... | ... | ... | ... | 2 | ... | 2 |
| Alcohol | ... | ... | ... | ... | 1 | ... | 1 |
| Opium | ... | ... | ... | ... | 13 | ... | 13 |
| Other Poisons | ... | ... | ... | ... | 1 | ... | 1 |
| Poisoned Wounds | ... | ... | ... | 1 | 2 | ... | 3 |
| PARASITES. | | | | | | | |
| Distomum Sinense | ... | ... | ... | | | | |
| Toenia Solium | ... | ... | ... | | | | |
| Ascaris Lumbricoides | ... | ... | ... | 1 | 4 | ... | 5 |
| Anchylostomum Duodenale | ... | ... | ... | ... | 2 | ... | 2 |
| Oxyuris Vermicularis | ... | ... | ... | | | | |
| Filaria Medinensis | ... | ... | ... | | | | |
| Acarus Scabiei | ... | ... | ... | 2 | 40 | ... | 42 |
| Tinea Circinata | ... | ... | ... | ... | 22 | ... | 22 |
| Other Parasites | ... | ... | ... | ... | 3 | ... | 3 |
| Under Observation | ... | ... | ... | 1 | 33 | 1 | 34 |
| | | | | TOTAL ... | 255 | 5,084 | 440 |
| | | | | | | 5,339 | 264 |

* i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

FEDERATED MALAY STATES.

STATE OF PAHANG.

MEDICAL REPORT FOR THE YEAR 1908.*

POPULATION.

As there are no returns of immigration and emigration, it is impossible to compute the population of Pahang from the figures available.

Dr. Fry in his Annual Report for 1907 considered that the inhabitants numbered about 100,000, and I see no reason to suppose that any considerable increase or decrease has taken place in the population of the State during the year 1908.

The returns of registered births and deaths are as under (*See Table I.*)

These tables can only be regarded as an indication of the number of births and deaths which have actually taken place.

No returns have been received from Bentong, the largest town in the State of Pahang, and in some of the remoter districts, such as Temerloh, these occurrences are at times not registered until a year after they have taken place.

The number of deaths registered exceeds the number of registered births. This does not necessarily imply that there has been an actual excess of deaths over births, it is probable that more care is taken by relatives in registering a death than a birth. The large proportion of deaths as compared with births is due to the composition of the population, which consists to a large extent of male Chinese immigrants.

AGES AT DEATH.

| | | | | Male. | Female. | Total. |
|---------------|--------------|-----|----------|-------|---------|--------|
| Unknown | ... | ... | ... | 29 | 14 | 43 |
| Under 5 years | ... | ... | ... | 476 | 398 | 874 |
| 5-10 | ,, | ... | ... | 73 | 56 | 129 |
| 10-20 | ,, | ... | ... | 62 | 33 | 95 |
| 20-25 | ,, | ... | ... | 111 | 18 | 129 |
| 25-35 | ,, | ... | ... | 498 | 98 | 596 |
| 35-45 | ,, | ... | ... | 330 | 87 | 417 |
| 45-55 | ,, | ... | ... | 184 | 44 | 228 |
| 55-75 | ,, | ... | ... | 149 | 90 | 239 |
| 75 | ,, and above | ... | ... | 28 | 32 | 60 |
| | | | Total... | 1,940 | 870 | 2,810 |

(*See Tables II and III.*)

ZYMOTIC DISEASE AND VACCINATION.

Two slight outbreaks of small-pox occurred during the year, one in the Lipis district amongst the Sakais, and a second affecting the fisher-folk living on the East Coast, between Kuantan and Kuala Pahang.

A Sakai woman, living with Malays in Selangor, fled from her kampong into the jungle while convalescent from small-pox. This woman may have conveyed the disease to the Sakais of Pahang, but this is only hypothetical. The source of the outbreak on the Coast remains untraced.

There are three subordinate officers in the State who are employed solely as itinerant vaccinators.

During the course of the year 4,052 vaccinations were performed, that is nearly double the number of births registered in the previous year.

In 1907 over 5,000 vaccinations were recorded. That is to say about one-tenth of the whole population of the State has been vaccinated during the last two years.

* Tables not printed.

The lymph used was imported from Saigon and proved most satisfactory, the failures being due to deterioration of vaccine from keeping it too long before use.

In spite of the above statistics I am of opinion that there is a large proportion of the population unprotected against small-pox. This opinion is based upon examination and vaccination of the inmates of the Kuala Lipis gaol. About 25 per cent. were unvaccinated on admission and over 65 per cent. developed typical inflamed pustules when vaccinated.

The following are the records for the State, which show that the Malays thoroughly appreciate the protective influence of vaccination.

There are but few Chinese children born in the country, and consequently but few are vaccinated

(See Table IV.)

During October news was received of an outbreak of disease in Penak, a small Malay settlement some 15 miles from the mouth of the Semantan river. By the time I reached the place the outbreak was over. I saw three people who had been ill and had recovered.

Some 20 persons had been attacked during the course of the epidemic, which lasted about three weeks, and at least 13 had died.

Penak is a small village situated on the border of a swamp planted with padi and surrounded by hills. The inhabitants wash themselves and their clothes in this swamp from which they also obtain their drinking water.

The villagers were very suspicious, reticent and unwilling to give any particulars. As far as could be ascertained the disease was characterised by pains in the stomach and diarrhoea, which usually proved fatal in about seven days.

The disease was said to have been introduced by a boy who had been working on the railway survey and had been brought home ill.

The outbreak did not spread beyond Penak, and was probably epidemic dysentery not cholera.

There is apparently very little enteric fever in Pahang, even less than in the other States of the Federation, in which there are more towns and larger settlements.

The subjoined table sets forth the number of patients treated in the State hospitals for the last seven years :

| IN-PATIENTS. | | | | | | | | | | |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1902 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1,894 |
| 1903 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2,008 |
| 1904 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2,206 |
| 1905 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2,984 |
| 1906 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4,055 |
| 1907 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4,543 |
| 1908 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5,339 |

| OUT-PATIENTS. | | | | | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 1902 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7,620 |
| 1903 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 13,849 |
| 1904 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 13,312 |
| 1905 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 15,778 |
| 1906 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14,351 |
| 1907 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14,163 |
| 1908 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 21,007 |

The large increase of patients during the year under consideration is due to :

- (1) The opening up of new rubber estates;
- (2) The low price of tin;
- (3) The opening of a dispensary at Temerloh.

The following returns show the number of patients treated at the various hospitals and dispensaries throughout the State.

(See Tables V, VI and VII.)

DYSENTERY AND DIARRHŒA.

The separation of these two diseases in the return is misleading.

The terms are used indiscriminately by dressers, and the 47 deaths entered in the return as due to diarrhœa were probably all, or nearly all, due to dysentery.

One hundred and twenty-one deaths were due to these diseases, nearly double the number caused by any other malady.

The disease appears at times to originate not only by infection from man to man but also from drinking jungle water uncontaminated from any human source.

MALARIA.

I have not attempted to classify these cases according to types. Hardly any of them were diagnosed microscopically, and doubtless many included under this heading were not due to malaria at all.

The numbers given in the returns are misleading and are apt to give an exaggerated idea of the prevalence of this disease.

The towns and villages of Pahang appear to be comparatively free from malaria.

The rivers run swiftly in deep channels, and there are, as a rule, no weeds or grasses extending from the steep banks into the water. Mosquitoes are therefore unable to obtain sheltered spots in which to lay their eggs.

In Kuantan and Pekan mosquitoes are sometimes very troublesome, but I saw no anopheles in the former town during a stay of two weeks, though they are very plentiful on the granite headland to the mouth of the river which the Malays say is haunted and where fever soon kills or drives away any settler.

In Kuala Lipis, the Capital of Pahang, there are very few mosquitoes of any kind. It is difficult to say why they are not more numerous as there appear to be plenty of suitable spots in which they might breed.

The *Ceratopogon*, which is locally called a sandfly, is at times a terrible pest in some parts of Kuala Lipis.

BERI-BERI.

There were more admissions to the State hospitals on account of this disease than for the four preceding years. Prior to that time I have no records.

This increase is probably due to the low price of tin.

This acts in two ways. In the first place the cooly is obliged to live on a cheaper and less varied diet, and is consequently more liable to the disease; secondly there are many convalescent and partially paralysed beri-beric invalids, who though they are not strong enough to work can yet wander from kongsi to kongsi living on their friends, who in times of prosperity combine the proverbial charity of the Asiatic with the ready hospitality of the successful miner.

When times are bad the mining cooly has no money to spare, and this small army of invalids turns to the Government hospitals for support.

It is probably the inclusion of these chronic cases in the returns of beri-beri admissions which accounts for the low case-mortality during 1908.

The disease is limited almost entirely to the Chinese, who are eaters of rice locally known as "Siamese" or "Rangoon."

With regard to Malays, speaking from the small experience of three months, beri-beri does not occur amongst the village folk, who eat locally grown grain, but is limited entirely to those who live on so-called Siamese or Rangoon rice.

Some five years ago, Dr. Daniels, then Director of the Institute of Medical Research, visited the great tin mines at Sungai Lembing, up the Kuantan river.

He found the settlement decimated by beri-beri. At that time the journey from the town of Kuantan to the mines at Sungai Lembing occupied three or four days. Now the Pahang Consolidated Company has taken over these mines, provisions can be brought up in a day by a stern-wheeler and a light railway.

The result is that the Company's hospital is almost empty; their Medical Officer is engaged in preventing disease instead of treating the sick, and was unable to show me a single case of beri-beri amongst the two thousand coolies in the employ of the Company.

The Medical Officer, Dr. Pou, informs me that there is very little ancylostomiasis amongst the miners, and I was much struck by the sanitary regulations in the mine workings. A bucket is placed in each section of the mine, and should any nuisance be committed elsewhere the headman of that section is heavily fined.

In the gaol at Kuala Lipis there is no beri-beri, nor does any appear to have developed there while the present diet scale has been in force, though the rice used is machine-milled Siamese rice.

The gaols in other States of the Federation which have the same diet scale are also, I understand, free from beri-beri.

The subjoined table shows that the daily amount of rice per prisoner was 16 tahils. It has been shown at the Kuala Lumpur Lunatic Asylum that of a community consuming a certain diet containing 21 tahils of Siamese rice per head per diem many will develop beri-beri. Whereas if parboiled rice be substituted for the Siamese variety no cases of the disease occur.

If beri-beri were due to a poison contained in the rice it is probable that some persons being more susceptible would develop beri-beri, though only 16 tahils were eaten daily instead of 21.

The rice for the gaol is supplied by a contractor who buys it from various sources.

The hospital returns show that beri-beri has not decreased during the last twelve months throughout the Federated Malay States, and if the disease is due to a poison in the rice which is present in some samples and absent in others it is most improbable that none of the former should even reach the gaols.

It appears on the other hand more in accordance with events that the cause of beri-beri is due to a fault in the diet considered as a whole.

The following is the diet scale for the prisoners in the gaols.

(See Table VIII.)

THE GAOL.

The figures of the sick returns for the Kuala Lipis gaol show a daily average of 6.8 patients in hospital and 2,697 out-patient attendances for the year, the average daily number of prisoners in the gaol being only 69.25.

These figures give quite a wrong idea of the condition of the inmates of this gaol.

The number, 2,697, includes every prisoner who asked to see the Doctor, and the large number admitted to hospital is accounted for by the admission under observation of every prisoner who complained of feeling out of sorts and unequal to the performance of his task.

The general health of the prisoners was excellent, and after weighing all of them on one day and comparing their weights with the weights entered in the Register at the time of their admission it was found that on an average each man had gained a pound during the time he had been in gaol.

GENERAL.

During the year there have been many changes in the personnel of the Medical Department.

In July, Dr. Barrack, the District Surgeon of Kuantan, was murdered by gang robbers on the Blat Road. He was a man known for his kindness, tact, common-sense and straightforward dealing.

The headquarters office was transferred from Raub to Kuala Lipis in October.

Dr. Fry, State Surgeon, was transferred to Penang on the 16th September.

Dr. Delmege acted as State Surgeon from the 16th to the 23rd September, and Dr. Fletcher from the 24th September to the end of the year.

Dr. Delmege left Kuala Lipis on the 5th October for ten months leave.

Dr. Millard acted as District Surgeon, Raub, from the 1st September to the end of the year.

Dr. Leicester, District Surgeon, Pekan, took charge of the Kuantan district from July to the end of the year in addition to his own duties.

Apothecary Phillips was in charge of the Bentong hospital.

Dresser Abdul Ghany was stationed at Temerloh.

W. FLETCHER,
Medical Officer in Charge, Pahang.